

predetermined interval, with the electrode layers facing each other. At least one of these electrodes has a surface roughness within specific parameters as set forth in claims 4-7. Applicants have found that this surface roughness is important in preventing the appearance of Newton rings when the touch panel is depressed.

2. Hindsight

The examiner states that “one would have been motivated [to combine the Fujii and Murata references] in view of the suggestion in Murata that a surface-roughened layer formation equivalently provides the desired surface roughness” (emphasis added).

The “desired surface roughness” can only be something that is recognized in hindsight, having the benefit of applicants’ disclosure. The primary reference, Fujii et al. does not recognize that any surface roughness is “desired” at all, or that surface roughness has any applicability or benefit in touch panel applications. It is only with the benefit of applicants’ disclosure that one could conclude that surface roughness is “desired” in a touch panel. Murata describes a desire to have surface roughness of an unspecified amount, in an entirely different application.

If the examiner persists in this rejection, he is requested to point out what specific knowledge, or specific information in the cited references, that the examiner relies on to substantiate that a “desired surface roughness” in fact existed or was recognized for touch panels, prior to the effective filing date of this application.

3. Combining the references

Fujii et al. is related to touch panels. Touch panels have a particular problem when they are depressed, in that Newton rings can form when the panel is bent by an amount approximating the wavelength of visible light. Fujii, however, recognizes neither that a) the Newton ring problem can be overcome in any particular way, nor b) that the Newton ring problem can be overcome through careful selection of surface roughness/inter-projection distance and interprojection distance on a coating on a transparent electrode in a particular type of touch panel construction.

Murata is not related to touch panels in any way. Murata is instead concerned with an antireflection layer, which is not described in either reference as having any usefulness as an electrode in touch panel applications. The examiner’s rationale for combining the references, that both references “teach about liquid crystal display devices” is simply too

vague and general, particularly since the particular component in question here, a transparent electrode for a touch screen, is not an anti-reflection layer. The examiner has stated no rationale which would explain why one skilled in the art would look to a reference describing an anti-reflection layer for guidance in modifying a transparent electrode in a touch screen assembly.

4. Unexpected results.

Even if Fujii and Murata were properly combinable, the fact remains that neither of these references describes the specific centerline average surface roughness (RA)/interprojection distance (SM) and the interprojection distance (SM) set forth in applicant's claims. Thus, no combination of these references leads to the claimed invention.

The data set forth in Table 1, page 18 of the English language specification describes how Newton ring prevention characteristics and insulating properties are related to the RA/SM and to SM itself. These data establishes that both of these parameters must be met in order to achieve both good Newton ring prevention and good insulating properties. The references do not in any way suggest this relationship, either singly or collectively.

Regarding the Rejection over Okamura et al. in view of Amimori et al. and Kashima et al.

This rejection is respectfully traversed.

Claims 1-3 were rejected in the previous office action over the combination of Okamura and Amimori only. The examiner has now agreed that those two references alone do not support a rejection of the claims. The question, therefore, is whether the addition of the Kashima reference cures the deficiencies of the other two references.

Claims 1-3 of the present invention are to a Newton ring prevention film having projections that create surface roughness defined by certain specified parameters. A transparent electroconducting layer is on the surface of Newton ring prevention film, on the side on which the surface projections are formed. As discussed above and in the previous response, only when both SM and RA/SM are within ranges recited in the claims can one obtain both good Newton ring prevention and good insulating properties.

As discussed in the previous response, Okamura fails to describe the particular construction of the device of applicant's claims 1-3 and do not recognize that, in such a device, surface roughness characteristics are an important parameter. Amimori et al. describes films having specific surface roughness characteristics, but fails to describe the

particular construction set forth in the present claims, and of course does not relate the specific surface roughness to Newton ring prevention or other performance characteristics of applicant's particular device.

Further with respect to Amimori et al., their centerline average surface roughness of 0.1-0.3 μm , together with their preferred average particle interval of 20-200/cm, i.e., interparticle distance of 50-500 μm , infers an RA/SM of preferably $0.2 \times 10^{-3} - 6 \times 10^{-3}$, which is much broader than the RA/SM range recited in the present claims. The selection of the specific RA/SM range of $0.8-2.0 \times 10^{-3}$ for touch panel applications is not suggested by the combination of Amimori and Okamura.

Kashima describes a lens sheet or prism sheet provided with a coating layer having fine projections with a projection height of 1-10 μm (10 point surface roughness) to prevent Newton rings. Kashima does not specify the RA or SM of these projections. In this application, Newton rings are created due to the internal light source of a transmitting display device, which is an altogether different mechanism than that by which Newton rings are formed in a touch panel display. Kashima therefore suggests nothing about whether surface roughness plays a role at all in preventing Newton ring formation in a touch panel, and suggests even less about RA and SM values that provide the desired effects in touch panel applications.

Kashima therefore does not cure the deficiencies of the Okamura and Amimori references. The combination of these references does not render the invention of claims 1-3 obvious.

Respectfully submitted,
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